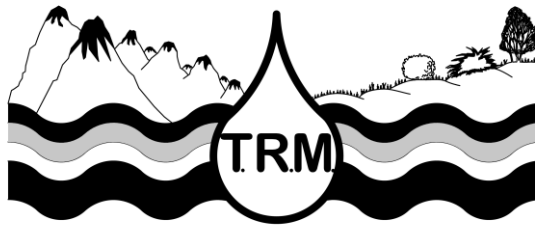




The River Mile Framework



Kindergarten - First Grade

TRM
Connections
to
Washington State
Revised Science Standards

Working Model
2/12/2010



The River Mile Framework: Instructional Connections Grades K-1

TRM Essential Question: How do we simultaneously use and protect our watershed?

Guiding Questions: How do we explore and observe our natural world? What questions do we have about what we see at The River Mile (TRM)? What tools can help us learn about our world? How can we help protect and preserve the natural world?

EALR 1 - Systems: Parts to Whole Relationships

Identify parts of living & non living systems.

- Students describe their Sit Spot location in drawings & words (e.g., plants, animals, birds, rocks, rivers, lakes, soil composition, weather, and man made objects such as buildings, roads, paths)
- Identify systems & their parts, (e.g., name at least 5 parts of an animal or plant, and compare the parts of the object to the whole)
- Use words like, "whole, part, inside, and outside."

EALR 2 - Inquiry: Making Observations

Answer questions by explaining observations of the natural world.

- "What do plants and animals need to survive?" "Why does the weather change?" "How is weather measured?"
- Use the Sit Spot experience to make & record observations. This may be done in a school garden prior to taking students to TRM location.
- Students sort, describe, compare, and record their observations. Students ask their own questions about plants, animals and TRM environment.
- Use words like, "why, when, where, how, and what if."

EALR 3 - Application: Tools & Materials

Use simple tools & materials to solve problems in creative ways.

- Describe TRM observations using tallies, tables & picture graphs. Look for patterns in your observations by counting, classifying, & measuring.
- Did your observations make you wonder about problems the plants or animals might have in getting food or water? What do you need to know to solve the problem?

EALR 4 - Physical Science: Push Pull & Position

Forces are pushes & pulls. Motion is change in position.

- Describe the location of plants and animals at TRM in relation to another object using words like, "in front of, at the side, in back of, higher than, lower than, behind, between, before, beside, and below."
- Describe the motion of animals and identify their moving parts (e.g., legs, wings, and tails)



EALR 4 - Physical Science: Liquids & Solids

Different kinds of materials display different properties.	<ul style="list-style-type: none">• When sampling water at TRM, observe how the liquid changes shape as it is placed in different containers.• Observe pebbles, sand & rocks. Notice that solids keep their shape.• Conduct sink & float experiments. Predict objects that will sink & why.• Identify objects at TRM that can be sorted into liquids & solids.
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EALR 4 - Earth & Space Science: Observing the Sun & Moon

The Sun & Moon have patterns of movement that can be observed & recorded.	<ul style="list-style-type: none">• During a Sit Spot at TRM, observe the many things that can be seen in the sky that change minute by minute (e.g., birds, airplanes, & clouds). Describe how the location changes over time.• At home & school observe objects that change their shape & position in observable patterns day after day. Create a moon log for a month.• Notice and record how the position of the sun appears to change over time during a visit to TRM or an outdoor learning area.
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EALR 4 - Earth & Space Science: Properties & Change

Earth materials have various properties.	<ul style="list-style-type: none">• Observe the physical properties of rocks, sand, soil and water. Use terms like, "hard, soft, dry, wet, heavy, and light."• Sort earth objects by one observable property• Compare earth objects by two properties (e.g., size, color, & texture).• Notice human made objects (e.g., trash, fences, roads, & buildings). Compare & contrast the properties of natural and non-natural objects.
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EALR 4 - Life Science: Plants & Animal Parts

Plants & Animals meet their needs in different ways.	<ul style="list-style-type: none">• Observe the external parts of a plant or animal.• Observe how the parts of a plant or animal look under a magnifier. Use words and drawings to describe the plant or animal.• Compare how different animals obtain food and water (e.g., a squirrel hunts for nuts, and many birds and insects find nectar in flowers).• Research the role of roots, stems, and leaves to meet plant needs.
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EALR 4 - Life Science: Habitats

Habitats are places that meet the daily needs of plants & animals.	<ul style="list-style-type: none">• Describe the different plants and animals that live together in TRM.• Identify the characteristics of the habitat that provide the basic needs of food, water and shelter for a specific plant or animal.• Identify ways TRM habitat provides protection, (e.g., trees provide protection for birds and undergrowth protects rabbits).• Identify how humans change habitats in harmful and helpful ways.
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EALR 4 - Life Science: Classifying Plants & Animals

Both plants & animals have different characteristics that can be used to classify them.	<ul style="list-style-type: none">• Identify external parts of a plant or animal (e.g., insect legs; flower stems & roots; bird beaks & feathers; or animal eyes & ears).• Take photos at TRM. Print the photos & sort the objects into the categories of plants, animals & minerals or living and non-living.• Observe how animals use body parts to grasp objects & move• Compare and contrast the similarities and differences of TRM plants and animals.
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Stewardship of Our River Mile

	<ul style="list-style-type: none">• Identify the objects that do not belong in TRM (e.g., trash, garbage, and pet waste) and discuss ideas for clean-up.
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Units of Study that can be reinforced by visits to The River Mile location are:

FOSS Kit: Animals 2x2

FOSS Kit: Air & Weather

FOSS Kit: Insects

FOSS Kit: Wood & Paper

FOSS Kit: Balance & Motion

FOSS Kit: New Plants

FOSS Kit: Pebbles, Sand & Silt

FOSS Kit: Solids & Liquids

Delta Kit: Seeds to Plants

Teacher made units: properties of matter, seeds, leaves, bugs & insects, frogs & polliwogs, butterflies, birds, chicks

Math: counting & sorting, pattern recognition

NPS Resource Managers Related Projects & Programs: